MICROECONOMICS I.
"B"

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week 8

Consumption and demand, part 2

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The course was prepaerd by Gergely Kőhegyi, using *Jack Hirshleifer, Amihai Glazer and David Hirshleifer (2009) Mikroökonómia. Budapest: Osiris Kiadó, ELTECON-books (henceforth HGH)*, and *Gábor Kertesi (ed.) (2004) Mikroökonómia előadásvázlatok. http://econ.core.hu/ kertesi/kertesimikro/ (henceforth KG)*.

Income and substitution of a price change

Approaches to income compensation

How should the government compensate for the effects of price change, which made some groups in the society worse off?

Two types of effects of price change

The effect of price change upon consumer demand may be separated into two components.

- Fall in P_x increases the consumer's real income. He or she could buy the same bundle of goods as before, and have something left over. If X is a superior good, the consumer will use some of the excess to buy more X This is called the *income effect* of the fall in P_x

- Furthermore, at the lower P_x the substitution balance equation tells us that even if real income or utility had remained the same, more X would have been purchased. This is called the pure substitution effect of the price change.
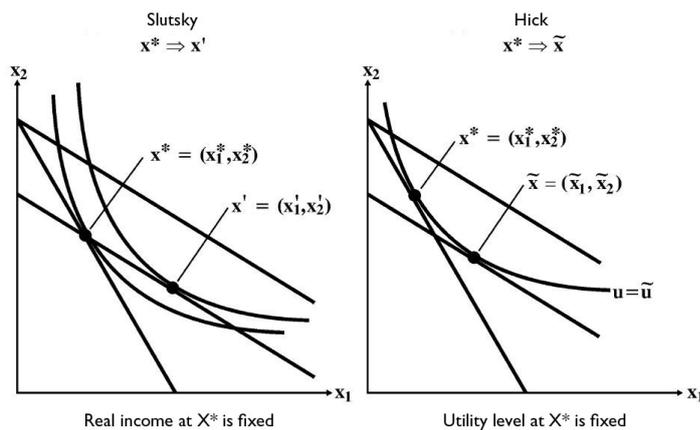

Hicks decomposition
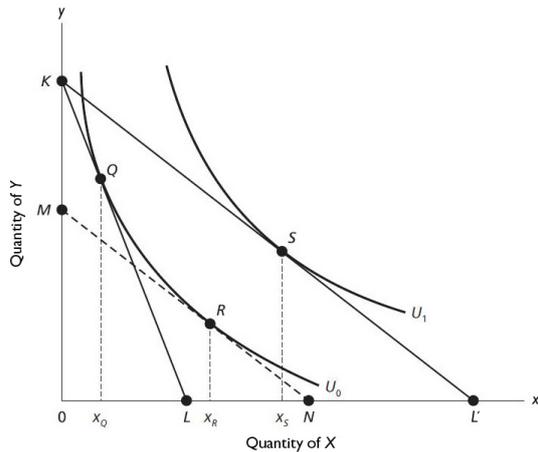
A fall in price P_x with income and P_y held constant shifts in the budget line from KL to KL' so that the consumption optimum changes from Q to S. Because S lies on a higher indifference curve, there has been an increase in real income. We construct an artificial budget line MN parallel to KL' and tangent to the original indifference curve U_0. The income effect of the price change is therefore $x_S - x_R$ and the pure substitution effect of the price change is $x_R - x_Q$.

How can the Giffen case come about?

A Giffen good must have the following properties.

- It must be inferior, so that the income effect of a price change is negative.

- It must account for a large fraction of the budget. This makes the "perverse" income effect large in magnitude. (It has to be large if it is to overcome the pure substitution effect.)

At the initial high bread price the budget line is KL and the optimum is Q. A fall in the price of bread shifts the budget line to KL'. The consumer is sufficiently enriched to prefer buying less bread and more meat at point R. The movement from Q to R consists of a small substitution effect (Q to S) and a large negative income effect (S to R). For this Giffen result to occur, bread must be strongly inferior.
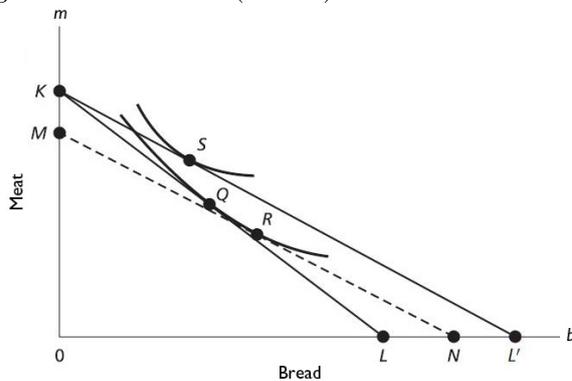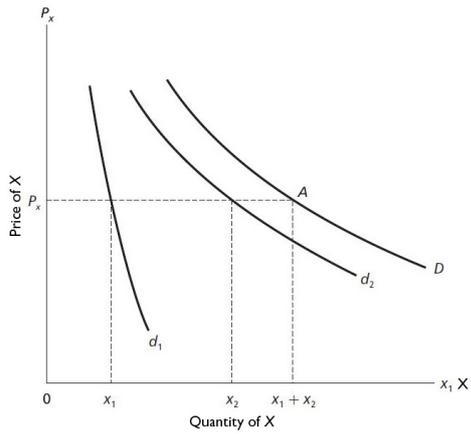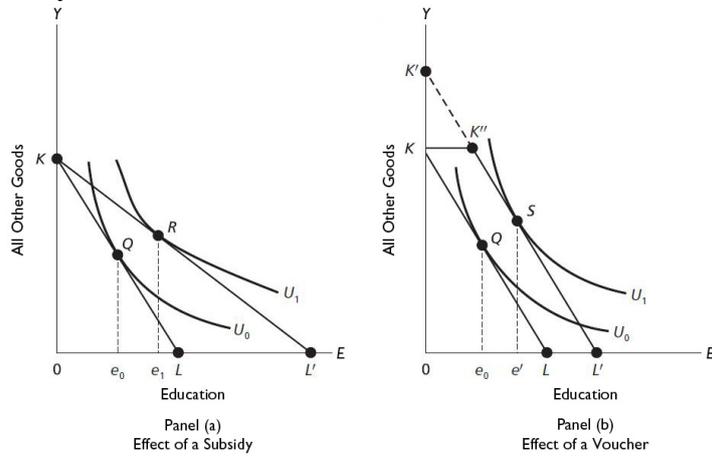

Market demand

Summing individual demands

$$X \equiv \sum_{i=1}^{N} x_i$$

Here d_1 and d_2 are demand curves for two individuals. If these are the only two potential purchasers of the good, the overall market demand curve D is the horizontal sum of d_1 and d_2.

Subsidy versus voucher

Panel (a)
Effect of a Subsidy

Panel (b)
Effect of a Voucher

Voucher

The initial optimum is a corner solution at K; no education is purchased. A voucher gift of income in the amount KK' leads to a new optimum at K'' The voucher leads to an increased consumption of education, provided only that education is a good rather than a bad for this individual.